Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Parasitic seed-plants.—FRAYSSE[20] has presented an interesting account of the ecological relations of a number of parasites. Especial attention was given to *Osyris alba*, a green parasite of the Mediterranean region, which grows on many hosts, but particularly on legumes and mycorhizal plants. The seeds germinate with difficulty, and the seedlings can live for nearly a year independently. The complicated structures of the perennial haustoria are quite fully described. The host reacts by forming tyloses and other apparently defensive modifications. Similar studies were made of *Odontites rubra serotina*, *Euphrasia officinalis*, Lathraea, and *Monotropa hypopitys*. Most botanists regard the last species as a mycorhizal plant, but FRAYSSE seems to find it parasitic on Pinus. In all of the species studied, attention is paid to the starch and its distribution in and around the haustoria; this starch is digested by diastases secreted by the haustoria, and is then absorbed by the parasite. The last portion of the treatise deals with the remarkable characteristics of *Cytinus Hypocistis*, which lives internally for a long time, forming vegetative structures comparable to a thallus. The penetration of this thallus is accomplished by mechanical means in part and in part by the action of diastases.—H. C. COWLES.

A new hymenomycete.—MCALPINE[21] finds that the fungus described as *Isaria fuciformis* in 1872 by BERKELEY, from material collected in Australia in 1854, is a basidiomycete. The fungus grows principally on grasses, but it also attacks other plants. It consists of an effused somewhat gelatinous layer from which rise Isaria-like tufts of hyphae, bearing conidia. On account of these conidia-bearing tufts the fungus was placed in the genus Isaria. MCALPINE finds, however, that the effused part of the fungus bears a basidiosporic hymenium, in consequence of which he places it in the genus Hypochnus as *H. fuciformis* (Berk.) McAlp.

In a note following the foregoing article, VON HÖHNEL and SYDOW point out that the name Hypochnus is no longer tenable, since the species included under it belong partly to Corticium and partly to Tomentella. To include species having tufts of hyphae rising above the hymenium, V. HÖHNEL and LITSCHAUER have elevated PATOUILLARD'S section Epithele to a genus. In this VON HÖHNEL and SYDOW place MCALPINE'S fungus as *E. fuciformis* (Berk.) v. Höhn. et Syd.—H. HASSELBRING.

Embryo sac of Impatiens.—LONGO[22] has described an interesting haustorial apparatus in connection with *Impatiens amphorata*. In the growth of the sac the small nucellus is resorbed, the sac coming into contact with the inner integument, whose inner cells function as a tapetum. From the enlarged micropylar end of the sac a haustorial tube is developed, which passes through the micropyle, and then enlarges very much and sends out numerous branches which penetrate the funiculus and also the outer integument. The tube is occupied by an endosperm nucleus, which in the enlarged region outside of the micropyle becomes correspondingly enlarged and amoeboid in outline. There is also a short chalazal haustorium. The tapetal layer of the inner integument eventually becomes cutinized, and the vascular connections through the funiculus are imperfect, so that the embryo is fed through the haustoria, especially the prominent micropylar one. Such haustoria are common among the Sympetalae, but the micropylar ones are imbedded in the heavy integument and usually do not wander out of the ovule through the micropyle.—J. M. C.

---

[20] FRAYSSE, A., Contribution à la biologie des plantes phanérogames parasites. Montpellier. 1906. See Bot. Cent. **102**: 51–52. 1906.

[21] MCALPINE, D., A new hymenomycete—the so-called *Isaria fuciformis* Berk. Ann. Mycol. **4**: 541–551. *pls. 8, 9.* 1906.

[22] LONGO, B., Nuove ricerche sulla nutrizione dell' embrione vegetale. Reale Accad. Lincei **16**: 591–594. *figs. 2.* 1907.

A parasitic alga on tea.—HUTCHISON[23] has studied the life-history of *Cephaleuros virescens*, the so-called "red rust" of tea. This remarkable alga is the greatest menace to the tea crop in northeastern India; and another observer is cited as stating that it is doing serious damage to mango trees in Bengal as a stem blight. This "blight" alga is one of the Chroolepidae, and attacks the leaves of the tea plant, completely piercing them; but the serious form of attack is upon the cortex of young stems. The alga occurs as orange-yellow, roughly circular patches on the upper surface of the host. It is propagated from these patches either by the discharge of zoospores under conditions that favor swimming, or by the breaking-off of the sporangium and its transportation bodily by the wind. The attack on young stems is intimately connected with their rough surface, all the young algal patches being found in the crevices of this surface. If the young shoot grows rapidly, it may outstrip the alga and "no permanent infection takes place;" but if the young shoot grows slowly, the alga is able to penetrate and destroy it.—J. M. C.

The cereal rusts.—EVANS[24] has undertaken a detailed study of the histology of the "cereal rusts," that is, the species of Puccinia formerly included under *P. graminis*, *P. rubigo-vera*, and *P. coronata*, and more recently broken up into a greater number of species on the basis of both morphological and physiological characters. The investigation was begun at Cambridge in 1903, at the suggestion of the late Professor MARSHALL WARD, and has been continued at Pretoria, at the Transvaal Department of Agriculture, where the author is mycologist. This first paper deals with the development of the uredo-mycelia, and the principal results are as follows: In the early stages of the mycelia, these species exhibit distinctive morphological characters; the sub-stomatal vesicle is of a definite shape for each species; the haustoria of some species are very distinctive; and in some species a well-developed appressorium is present, while in others it is not so evident.—J. M. C.

---

[23] HUTCHINSON, C. M., *Cephaleuros virescens* Kunze: the "red rust" of tea. Mem. Depart. Agric. India Bot. **1**:no. 6. pp. 35. *pls. 8.* 1907.

[24] EVANS, B. POLE, The cereal rusts. I. The development of their uredo-mycelia. Annals of Botany **21**:441–466. *pls. 40–43.* 1907.